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- (71) Applicant: Canon Inc
- (72) Inventor: Soma Hidetomo
- (54) Title of the invention: Device, system and method for information processing and storage medium
- (57) Abstract:

Problem to be solved: To provide an information processor with which a user can easily update or correct the computer program and data of a device for house including a computer, a computer for an individual, and the like, such as a personal computer.

Solution: This information processor 110 receives information for performing the functions of devices or systems 120 to 140 by communication due to a prescribed communicating method (multiple address type communicating method) on the basis of information about the devices or systems 120 to 140 and information on the information (computer program, data and correction information) for performing the functions of the devices or the system 120 to 140 and stores the information.

### **[Claims]**

[Claim 1] An information processor that acquires information for carrying out a function of arbitrary devices or a system with a predetermined correspondence procedure, based on information about information for carrying out a function of a device or a system of the mentioned above arbitration of information about a device or a system of the mentioned above arbitration, an information processor provided with an acquisition means that acquires information for carrying out a function of a device or a system of the mentioned above arbitration with the mentioned above predetermined correspondence procedure.

[Claim 2] The information processor according to claim 1 characterized by that a computer program, data, fix information text includes at least information for carrying out a function of a device or a system of the mentioned above arbitration is used by a device or a system of the mentioned above arbitration.

[Claim 3] The information processor according to claim 1 characterized by that the mentioned above predetermined correspondence procedure includes a multiple address type communication method.

[Claim 4] The information processor according to claim 1 characterized by receiving information for carrying out a function of a device or a system of the mentioned above arbitration based on a discriminated result of the mentioned above discriminating means, including a reception means that receives distribution of information for the mentioned above acquisition means

to carry out a function of a device or a system of the mentioned above arbitration, the 1st table means that acquires information about information for carrying out a function of an accumulation means that accumulates information received in the mentioned above reception means, a device or a system of the mentioned above arbitration, and is managed in the available state, the 2nd table means that acquires information about a device or a system of the mentioned above arbitration, and is managed in the available state, based on each management information in the above 1st table means, and the above 2nd table means, information for carrying out a function of a device or a system of the mentioned above arbitration that should be acquired, a discriminating means to distinguish the mentioned above reception means.

[Claim 5] The information processor according to claim 1 characterized by that information about information for carrying out a function of a device or a system of the mentioned above arbitration includes information on importance.

[Claim 6] The information processor according to claim 4 characterized by that the mentioned above discriminating means distinguishes information for carrying out a function of the mentioned above arbitrary devices or a system that should acquire based on directions from a user.

[Claim 7] The information processor according to claim 4 provided with a presenting means that presents a discriminated result of the mentioned above discriminating means to a user.

[Claim 8] The information processor according to claim 1 characterized by that the mentioned above acquisition means acquires information for carrying out a function of a device or a system of the mentioned above arbitration based on information about the mentioned above predetermined correspondence procedure.

[Claim 9] The information processor according to claim 8 characterized by that information about the mentioned above predetermined correspondence procedure includes information on a utilization charge of various distribution methods by the correspondence procedure concerned.

[Claim 10] The information processor according to claim 8 provided with the 3rd table means that acquires information about the mentioned above predetermined correspondence procedure, and is managed in the available state.

[Claim 11] An information processing system of a plurality of apparatus is the information processing systems that connects mutually, so that communication is possible, and is characterized by at least one apparatus including a function of the information processor according to claims 1 - 10 among a plurality of mentioned above apparatus.

[Claim 12] An information processing method for acquiring information for carrying out a function of arbitrary devices or a system by communication by a predetermined correspondence procedure, based on information about information for carrying out a function of a device or a system of the mentioned above arbitration of information about a device or a system of the mentioned above arbitration, an information processing method including an acquisition step that acquires information for carrying out a function of a device or a system of the mentioned above arbitration from a distributing agency by communication by the mentioned above predetermined correspondence procedure.

[Claim 13] The information processing method according to claim 12 characterized by that a computer program, data, fix information text include at least information for carrying out a function of a device or a system of the mentioned above arbitration is used by a device or a system of the mentioned above arbitration, data, and.

[Claim 14] The information processing method according to claim 12 characterized by that the mentioned above predetermined correspondence procedure includes a multiple address type communication method.

[Claim 15] The information processing method according to claim 12 including a receiving step that receives distribution of information for the mentioned above acquisition step to carry out a function of a device

or a system of the mentioned above arbitration, an accumulation step that accumulates information received by the mentioned above receiving step to a memory means, the 1st management step that acquires information about information for carrying out a function of a device or a system of the mentioned above arbitration from a distributing agency, and is managed in the available state to the 1st table means, the 2nd management step that acquires information about a device or a system of the mentioned above arbitration, and is managed in the available state to the 2nd table means, based on each management information in the above 1st table means and the above 2nd table means, a step that receives information for the mentioned above receiving step to carry out a function of a device or a system of the mentioned above arbitration based on a discriminated result in the mentioned above discriminating step, a discriminating step that distinguishes information for carrying out a function of a device or a system of the mentioned above arbitration that should be acquired.

[Claim 16] The information processing method according to claim 12 characterized by that information about information for carrying out a function of a device or a system of the mentioned above arbitration includes information on importance.

[Claim 17] The information processing method according to claim 15 characterized by that the mentioned above discriminating step includes a step that distinguishes information for carrying out a function of

the mentioned above arbitrary devices or a system that should acquire based on directions from a user.

[Claim 18] The information processing method according to claim 15 including a presentation step that presents a discriminated result in the mentioned above discriminating step to a user by a presenting means.

[Claim 19] The information processing method according to claim 12 characterized by that the mentioned above acquisition step includes a step that acquires information for carrying out a function of a device or a system of the mentioned above arbitration based on information about the mentioned above predetermined correspondence procedure.

[Claim 20] The information processing method according to claim 19 characterized by that information about the mentioned above predetermined correspondence procedure includes information on a utilization charge of various distribution methods by the correspondence procedure concerned.

[Claim 21] The information processing method according to claim 19 including the 3rd management step that acquires information about the mentioned above predetermined correspondence procedure from a distributing agency and is managed in the available state to the 3rd table means.

[Claim 22] A storage storing a processing program for carrying out a function of the information processor according claims 1 - 10, or a function of the information processing system according to claim 11, so that read-out by a computer is possible.

[Claim 23] A storage storing a processing step of the information processing method according claims 12 - 21, so that read-out by a computer is possible.

**[Detailed description of the invention]**

[0001]

[Field of the invention] This invention, for example for the apparatus that operates with a computer program, data, and the like, is used for the device or system for receiving and accumulating the computer program concerned and data or fix information text using multiple address format. It is related with the storage that stores the processing step for carrying an information processor, an information processing system, an information processing method, and a read-out by a computer is possible.

[0002]

[Description of the prior art] In recent years, the computer (microcomputer) with small electric appliances used at home is generally carried. The computer program and data that are used for control and the like by the computer concerned are also increasing with advanced features of the computer concerned. The case where a computer program and data need correction or updating that is used for control and the like by the computer concerned for the expansion of electric appliances, and the like is increasing.



[0003] The computer itself is becoming a situation that it is an individual oriented in each home. For example, a personal computer (only next a “personal computer”) is spreading through each home. A state required in very many cases has the correction or updating of a computer program and data used for the control about such a computer with a natural thing too.

[0004] Embodiment of the computers for the individuals at a home (personal computer and the like) that is used for a network connecting is increasing gradually. And a worldwide scale makes network connection easily also by the computer for the individuals at a home, and it is able to perform various information exchange by development of a network.

[0005] A communications network multiple address type using a terrestrial wave, the electric wave of satellite communication, and the like and its communication content are also improved, and a big communication region is held from the state of only distribution of the conventional sound, animation or text information, and various information can be distributed now.

[0006]

[Problems to be solved by the invention] By the way, the number of computers for individuals, such as a domestic appliance including a computer and a personal computer in a home, increases, and the number of the computer program and data used on a computer also increases, the kind is also increased further and the amount of information itself, such as each domestic

appliance and fix information text required for the correction or updating of the computer program of the personal computer and data, has got volume increasingly in connection with this. For this reason, there were the following problems in the conventional domestic appliance or the personal computer.

[0007] For example, various methods are conventionally proposed as a method of obtaining a computer program, data or fix information text and the like using a network. However, even if it is which method, it is necessary to transmit information via a network for a computer program, data or fix information text like a user unit, an apparatus unit or a computer program unit under the situation where it mentioned above, in a certain unit. For this reason, for example, to carry out expansion of one certain computer, it is necessary to transmit a computer program, data, fix information text, and the like separately via a network. As a result, network confusion is caused and information transfer will take much time. Problem will be made also to the user as whom it acts by carrying out information transfer for other purpose using the network for duplication transmission.

[0008] Next, about the problem of duplication transmission, it is possible to solve by using multiple address type.

[0009] However, in multiple address type, since information transfer is impossible at time for a user to want, the following processings are required. First, the side that carries out information transfer provides the

information about information content to transmit, a schedule, and the like to the user preliminary. A user chooses a computer program, data or fix information text and the like as information for which it asks according to this. A user provides information required for information reception to the side that carries out information transfer or the side that carries out information transfer transmits a computer program, all data or fix information text and the like to a user. A user chooses desired information, after receiving and accumulating all the transmitted information.

[0010] However, in the mentioned above processing required for multiple address type, giving the function for providing or setting information required in order that a user may do information reception to the side that carries out information transfer and the like to a computer will result in raising the cost of a computer. Also, this will lead to the problem of complication of processing. It is dramatically inconvenient to a user to provide or set information required in order that a user may do information reception to the side that carries out information transfer. If a user once receives, and accumulates all the information and it will become, a storage capacity required for the accumulation will be needed, and this will result in raising the cost of a computer too.

[0011] Next, accomplished this invention in order to remove the mentioned above problem and a user updating or correction of computer programs and data, such as a domestic appliance having a computer and computers for individuals, such as a personal computer,

can be made easily. It aims at providing the storage that stored the processing step for carrying an information processor, an information processing system, an information processing method and that read out by a computer is possible.

[0012]

[Means for solving the problem] It is an information processor that acquires information for the 1st invention to carry out a function of arbitrary devices or a system under this purpose with a predetermined correspondence procedure, the above information about arbitrary devices or systems, and based on information about information for carrying out a function of arbitrary devices or a system, it has an acquisition means that acquires information for carrying out a function of arbitrary devices or a system with the mentioned above predetermined correspondence procedure

[0013] In the 2nd invention information for to carry out a function of a device or a system of the mentioned above arbitration in the 1st the mentioned above invention is characterized by a computer program, data and fix information text used by a device or a system of the mentioned above arbitration, included at least.

[0014] In the 3rd invention, in the 1st the mentioned above invention, the mentioned above predetermined correspondence procedure includes a multiple address type communication method.

[0015] In the 1st the mentioned above invention, the 4th invention, the mentioned above acquisition means, a reception means that receives distribution of

information for carrying out a function of a device or a system of the mentioned above arbitration, the 1st table means that acquires information about information for carrying out a function of an accumulation means that accumulates information received in the mentioned above reception means, a device or a system of the mentioned above arbitration, and is managed in the available state, the 2nd table means that acquires information about a device or a system of the mentioned above arbitration, and is managed in the available state, based on each management information in the above 1st table means, and the above 2nd table means, the mentioned above reception means receives information for carrying out a function of a device or a system of the mentioned above arbitration based on a discriminated result of the mentioned above discriminating means including a discriminating means that distinguishes information for carrying out a function of a device or a system of the mentioned above arbitration that should be acquired.

[0016] In the 5th invention information about information for carrying out a function of a device or a system of the mentioned above arbitration in the 1st the mentioned above invention includes information on importance.

[0017] In the 6th invention information for carrying out a function of arbitrary devices or a system in which the mentioned above discriminating means should carry out the mentioned above acquisition of the 4th mentioned above invention based on directions from a user is distinguished.

[0018] The 7th invention is provided with a presenting means that presents a discriminated result of the mentioned above discriminating means to a user in the 4th mentioned above invention.

[0019] The 8th invention acquires information for the mentioned above acquisition means to carry out a function of a device or a system of the mentioned above arbitration based on information about the mentioned above predetermined correspondence procedure in the 1st the mentioned above invention.

[0020] The 9th invention includes information on a utilization charge of various distribution methods according to the correspondence procedure, information about the mentioned above predetermined correspondence procedure concerned in the 8th mentioned above invention.

[0021] The 10th invention is provided with the 3rd table means that acquires information about the mentioned above predetermined correspondence procedure, and is managed in the available state in the 8th mentioned above invention.

[0022] The 11th invention is an information processing system to which it connects a plurality of apparatus of each other so that communication is possible, and, as for at least one apparatus, it has a function of the information processor according to claims 1 to 10 among a plurality of the mentioned above apparatus.

[0023] The 12th invention is an information processing method for acquiring information for carrying out a function of arbitrary devices or a system by

communication by a predetermined correspondence procedure, based on information about information for carrying out a function of a device or a system of the mentioned above arbitration of information about a device or a system of the mentioned above arbitration. An acquisition step that acquires information for carrying out a function of a device or a system of the mentioned above arbitration from a distributing agency by communication by the mentioned above predetermined correspondence procedure is included.

[0024] In the 13th invention information to carry out a function of a device or a system of the mentioned above arbitration in the 12th mentioned above invention is characterized by a computer program data, and fix information text used by a device or a system of the mentioned above arbitration, included at least.

[0025] In the 14th invention, in the 12th mentioned above invention, the mentioned above predetermined correspondence procedure includes a multiple address type communication method.

[0026] In the 12th mentioned above invention, the 15th invention, the mentioned above acquisition step, a receiving step that receives distribution of information for carrying out a function of a device or a system of the mentioned above arbitration, an accumulation step that accumulates information received by the mentioned above receiving step to a memory means, the 1st management step that acquires information about information for carrying out a function of a device or a system of the mentioned above arbitration from a

distributing agency, and is managed in the available state to the 1st table means, the 2nd management step that acquires information about a device or a system of the mentioned above arbitration, and is managed in the available state to the 2nd table means, based on each management information in the above 1st table means, and the above 2nd table means, information for carrying out a function of a device or a system of the mentioned above arbitration that should be acquired including a discriminating step to distinguish the mentioned above receiving step, based on a discriminated result in the mentioned above discriminating step, a step that receives information for carrying out a function of a device or a system of the mentioned above arbitration is included.

[0027] In the 16th invention information about information for carrying out a function of a device or a system of the mentioned above arbitration in the 12th mentioned above invention includes information on importance.

[0028] In the 17th invention a step that distinguishes information for the mentioned above discriminating step to carry out a function of arbitrary devices or a system that should carry out the mentioned above acquisition based on directions from a user in the 15th mentioned above invention is included.

[0029] The 18th invention includes a presentation step that presents a discriminated result in the mentioned above discriminating step to a user by a presenting means in the 15th mentioned above invention.



[0030] In the 19th invention a step that acquires information for carrying out a function of a device or a system of the mentioned above arbitration based on information concerning a correspondence the mentioned above procedure predetermined in the mentioned above acquisition step in the 12th mentioned above invention is included.

[0031] The 20th invention includes information on a utilization charge of various distribution methods according to the correspondence procedure, information about the mentioned above predetermined correspondence procedure concerned in the 19th mentioned above invention.

[0032] The 21st invention includes the 3rd management step that acquires information about the mentioned above predetermined correspondence procedure from a distributing agency, and is managed in the available state to the 3rd table means in the 19th mentioned above invention.

[0033] The 22nd invention is characterized by that the storage that stored a processing program for carrying out a function of the information processor according to claims 1 - 10 or a function of the information processing system according to claim 11 so that read-out by a computer is possible.

[0034] The 23rd invention is characterized by that the storage that stored a processing step of the information processing method according to claims 12 to 21 so that read-out by a computer is possible.

[0035] In an information processor in which information acquisition by communication by a concrete for example, multiple address type communication method is possible, when receiving and accumulating distribution articles used by arbitrary devices or systems, such as a computer program of the latest version, data or fix information text, information (the contents of the distribution article, and a broadcasting station and a course that distribution is performed) concerning the distribution article concerned preliminary it changes into the state where information, including a communication method or a schedule, can be acquired and used by arbitrary means of communication and the like from a distribution destination (management by the 1st table means), it changes into the state where information (information about a computer program currently used, a version of data or a correction situation) about a device or a system of the mentioned above arbitration is acquired from device or a system concerned, and can be used (management by the 2nd table means). And information (each management information in the 1st and 2nd table means) is tested by comparison, a distribution article that should be received is distinguished, and reception and accumulation of the distribution article concerned are performed based on the discriminated result. At this time, reception and accumulation of the distribution article concerned are performed according to information, including a broadcasting station used for distribution, a course or a communication method, a schedule and the like.

This storage result is provided to a device or a system of the mentioned above arbitration. By this, even if a user does not know detailed specification about a computer program and the like that are used by device or system, and device or a system concerned (starting), a computer program data or fix information text required for a functional rise and the like of the device or a system concerned, and the like comes into hand easily, and updating or correction of a computer program, data and the like used by device or a system concerned can be made. For example, it is not necessary to work various setting out for a computer program data or fix information text required for a functional rise and the like of the device or a system concerned, and the like to come into hand. Thus, a user's burden is greatly reduced.

[0036] The following processings can be considered as processing at the time of receiving and accumulating a distinguished distribution article it should receive.

(1) As an obtaining method of a distribution article whether to receive and accumulate using which broadcasting station and course or a communication method, a schedule and the like, choose optimal (efficiently receivable obtaining method) and using this. When a plurality of distribution articles needs to be received at this time, each optimal obtaining method (obtaining method that can receive many distribution articles efficiently) is chosen.

Thus, a required distribution article can be obtained efficiently.

(2) Performing reception and accumulation of a distribution article based on importance given to a distribution article. When a plurality of distribution articles needs to be received at this time, it may be made to receive and accumulate first what has high importance based on importance of each distribution article. Thus, an important can be especially obtained among required distribution articles.

(3) Distinguishing a distribution article that should be received based on size of a distribution article, and capacity of a memory means for accumulation of the distribution article concerned, and perform reception and accumulation of the distribution article concerned. At this time, combination of a distribution article that can accumulate many distribution articles is chosen from distribution articles that should be received, and it may be made to perform reception and accumulation about selected. Thus, reception and accumulation of a required distribution article can be ensured.

(4) With importance given to a distribution article, distinguish a distribution article that should be received based on size of a distribution article and capacity of a memory means for accumulation of the distribution article concerned and perform reception and accumulation of the distribution article concerned. At this time, it may be made to choose a distribution article from what has high importance, so that many distribution articles can be received and accumulated.

Thus, reception and accumulation of an important thing can be especially ensured among required distribution articles.

(5) With importance given to a distribution article, size of a distribution article and capacity of a memory means for accumulation of the distribution article concerned, distinguishing a distribution article that should be received based on importance of a distribution article already received and accumulated, and performing reception and accumulation of the distribution article concerned. When the new distribution articles (upgraded distribution article) corresponding to a distribution article already received and accumulated are received at this time, it may be made to delete the distribution article concerned already received and accumulated. Thus, reception and accumulation of a distribution article can be performed, using a memory means for accumulation efficiently.

[0037] (6) A screen display shows to user information about a distinguished distribution article it should receive (presenting means). Thus, the user can check easily just to the distribution article concerned. At this time, a distribution article for which user asks out of a distribution article distinguished as it should receive is made to choose to a user, and it may be made to perform reception and accumulation of a distribution article according to this selection (directions from a user). Thus, only a distribution article that a user originally needs can be obtained.

[0038] (7) Also use information, including a utilization charge system of a multiple address type communication method, a utilization charge system of a network of the communication concerned, and the like, as information for distinguishing a distribution article that should be received. Thus, a required distribution article can be obtained cheaply.

[0039]

[Embodiment of the Invention] Next, an embodiment of the invention is described using a drawing.

[0040] (The 1st embodiment) This invention is applied to the information processing system 100 as shown on drawing 1, for example. The information processor 110 with which the information processing system 100 applied this invention, the computers 120 for individuals (PC), such as a personal computer, and the TV/VR device 130 that has broadcast receiving functions, such as television broadcasting, a data accumulation function, a display function, and the like, the computer for play 140 for home use (GC) has composition connected so that it could communicate via LAN 150 as a network.

[0041] Especially the information processing system 100 in this embodiment is characterized by the composition and operation of the information processor 110. Next, the composition and operation of the information processor 110 are explained concretely.

[0042] The information processor 110, CPU 201, ROM 202, RAM 203, a hard disk 204(DISK), a memory card driver 205 (MemCard), a network communication part 206 (NCU), broadcast receiving part 207 (DTU), a

keyboard 208 (KB), a cursor register 209 (CR), a display buffer memory 210 (DBUF), a display control part 211 (CRTC), CRT 212. And including the character generator 213 (CG), each of these formation parts 201-213 are connected, so that it can communicate mutually via the address bus AB, the control bus CB and the data bus DB.

[0043] CPU 201 manages the motion control of this whole device 110. For example, CPU 201 consists of microprocessors, performs an operation, logical decision and the like for various motion control and controls each formation parts 202-213 connected via the address bus AB, the control bus CB and the data bus DB. Control by CPU 201 is carried out by execution of the computer program (processing program) on ROM 202 or RAM 203 mentioned below. It is made to execute in parallel a plurality of computer programs by the function of CPU 201 and the mechanism of the computer program.

[0044] The address bus AB transmits the address signal that directs the formation part made into the object of control of CPU 201. The control bus CB transmits and impresses the control signal of the formation part made into the object of control of CPU 201. The data bus DB performs mutual data transfer of the formation parts 201-213.

[0045] ROM 202 is a read-only fixed memory and includes the area (program area) for storing the computer program according to the processing flow chart for carrying out motion control by CPU 201

mentioned below and the data area for storing various data.

[0046] RAM 203 is the random access memory that can be written in and used as an object for loading of the computer program concerned at the time of CPU 201 reading and executing the computer program in the program area of ROM 202, and the like, RAM 203 is used also as operating area required for the motion control of CPU 201, temporary storage area of the various data from each composition 202-213 of those other than CPU 201 and the like

[0047] Although it is made to carry out this embodiment because CPU 201 reads a computer program, data, and the like that were stored in ROM 202 to up to RAM 203 and performs them here, as a storage that stores a computer program, data and the like for carrying out this embodiment, it is not restricted to ROM 202. No matter what storage it may use, this embodiment is achieved by the computers (CPU and the like) of the system or a device reading the predetermined computer program (program code) stored in the recording medium concerned, and executing it. the recording medium (CD-ROM) that stored the computer program, data and the like concerning this embodiment, although a floppy (registered trademark) disk, CD-ROM, a hard disk, a memory card, a magneto-optical disc and the like are supplied to a system or a device and the program may be written in the rewritable storage of RAM and the like from the mentioned above storage, in this case, even if it is, this embodiment is achieved.



Although some are various as the computer program, data and the like actually written in the rewritable storage of RAM and the like, this embodiment is achieved even if it is a case where the computer program in this embodiment is included in it. For example, as shown on drawing 2, in the information processor 110 with the disk drive 204. Naturally, it is possible to incorporate the computer program concerned from the storage 160 with which the computer program in this embodiment was stored in the device 100 and storage 160 that stored this computer program is also included as this embodiment.

[0048] The hard disk 204 functions as external memory for storing various data and the like, for example, the hard disk 204 includes the storage to which a lot of information is made as for reading and writing at comparatively high speed, and keeps a computer program, various data, and the like if needed to the storage concerned. The hard disk 204 reads a part or all, such as the computer program, various data and the like that were kept in RAM 203 if needed with the directions from the user by keyboard KB, and directions by execution of various computer programs.

[0049] The memory card drive 205 has the function to incorporate the information stored on the memory card that is a detaching and attached type storage in this device 110, a function that writes the information in this device 110 in a memory card and the like this connects to other devices the memory card in which information was written in, concerned others it becomes possible to

refer to or transfer the information in a memory card with a device.

[0050] The keyboard 208 includes various kinds of function keys, such as a cursor control key for directing letter symbol input keys, such as an alphabet key, a hiragana key, a katakana key, and a period and a cursor advance.

[0051] The cursor register 209 writes the contents (address value) of the cursor register according to the control from CPU 201. The display control part 211 moves and displays the cursor on the display screen on CRT 212 as a display for indication on applicable cursor according to the address written in the cursor register with the cursor register 209.

[0052] The buffer memory 210 for a display stores the data that should be displayed on CRT 212. The display control part 211 displays the data stored in the buffer 210 for a display on CRT 212 according to the address written in the cursor register with the cursor register 209.

[0053] CRT 212 is the display for indication that used the cathode-ray tube and the like, and the display pattern of the dot constitution in the display screen and the display of cursor are controlled by the display control part 211.

[0054] The character generator 213 stores the pattern of the character and sign that are displayed in CRT 212.

[0055] This device 110 is for performing communication with other devices or a means via LAN 150, and, thus, as for the network communication part

206, it becomes possible to share the computer program and data in this embodiment with other devices or a means. As other devices or means, it is considered as the computer for individuals 120, the TV/VR device 130 and the computer for play 140.

[0056] As other devices or means of communicating via this device 110 and LAN 150, it is not restricted with the computer for individuals 120, the TV/VR device 130, and the computer for play 140 and various devices or means can be applied. Also to the network which connects these, it is not restricted to LAN 150 and various networks can be applied. Although it is considered as the system configuration of the closed network in the mentioned above drawing 1, it is good also as composition that is not restricted to this, for example, is connected with the external network.

[0057] The broadcast receive part 207 is a portion that realizes the receiving function of multiple address type using an artificial satellite and the like, and has a function that receives the electric wave and the like that are broadcast via an artificial satellite with the parabolic antenna (ANT) 214, and takes out the information that is contents currently broadcast. Although there are various embodiments as a embodiment of multiple address type and there are what is depended on a terrestrial electric wave, depended on the 0 axis cable, an optical cable, and the like and a network, a large scale network, and the like of LAN 150, it is applicable with any embodiment.

[0058] Drawing 3 and drawing 4 show operation of the information processor 110. The mentioned above drawing 3 is shown and the operation at the time of determining the computer program of the latest version data, or fix information text received and accumulated with this device 110, the mentioned above drawing 4 shows the operation at the time of receiving and accumulating the computer program of the latest version, data or fix information text determined by operation of the mentioned above drawing 3. These operations may be performed in parallel if needed.

[0059] That is, in the information processor 110, the computer program according to the flow chart of the mentioned above drawing 3 and drawing 4 is preliminary stored in ROM 202, and CPU 201 reads the computer program concerned in ROM 202 to RAM 203, and executes it. Thus, the information processor 110 operates as follows.

[0060] Step S301: When it becomes clear that the situation changed because the latest version of the variety of information mentioned below comes into hand when directions of execution of this processing were made by the keyboard 208 from the mentioned above drawing 3 reference user or perform processing from the following step S302.

[0061] Step S302: Acquiring the information on the computer program, data and the like used now by the computer for individuals 120, the TV/VR device 130 and the computer for play 140 (only next «the apparatus 120-140») on LAN 150, although various methods can

be considered as the method of the information acquisition at this time, it may be made to acquire the information on the apparatus 120-140 via LAN 150 for example. Or it may be made to incorporate the information on the apparatus 120-140 preliminary stored in storages, such as a memory card, into this device 110.

[0062] Drawing 5 shows the information 501 on the apparatus 120-140 obtained at Step S302. The information 501 is the table data TBL and includes each information on the «operation appliance» in which the apparatus by which «user ID» (use ID) and a computer program are executed is shown, the «name» of a computer program, and the «present state» of a computer program.

[0063] Also, in the above mentioned drawing 5 shows LAN 150 for 3 individual computers (PC) 120, 121, 122, for 2 TV/VR devices 130, 131 and 2 game computers (GC) 140, 141 connecting these each apparatus information 501 .

[0064] «Use ID» is a number (ID) assigned by this device 110, in order that a user may identify a computer program, data, and the like that are used on subject equipment. Each information on an «operation appliance», a «name», and the «present state» is information provided from subject equipment. An «operation appliance» is the subject equipment that the user is using, its kind, and the like the information for identifying and a «name», it is the information for identifying the computer program and data on subject

equipment, and «the present state» is the information about versions, such as a version number determined when the computer program and data on subject equipment are created, the creation date or creation classification.

[0065] Thus, in the 1st line of table data TBL 501 of the mentioned above drawing 5, the base system (software that realizes the fundamental function of apparatus, such as an operating system and a graphical user interface) of the computer for individuals 120 (PC), the information that are the version 1.00 and it is created on December 12, 1999 is provided. The same may be the mentioned above of the line after this.

[0066] By acquiring table data TBL 501 of the mentioned above drawing 5, the information processor 110 can recognize the computer program and data that the user uses with subject equipment.

[0067] Step S303: Acquiring the information about the computer program of the latest version and data or fix information text of a schedule that are distributed by multiple address type from the exterior or are distributed by storages, such as a memory card, via the network communication part 206 or the broadcast receive part 207. Here, the computer program of the latest version, data or fix information text and the like shall be distributed by multiple address type from the exterior via the network communication part 206 or the broadcast receive part 207.

[0068] Drawing 6 shows the acquisition information 502 in Step S303. The information 502 is the table data TBL, each information on «distribution article ID», the «size» of delivery information, «subject equipment», an «applicable condition», the «contents, such as change and correction», and «importance» is included, and all these information is information from the distribution side.

[0069] «Distribution article ID» is the information for identifying the computer program of each latest version and data or fix information text that are distributed by multiple address type (distribution article). «Size» is a size of a distribution article and a «subject affair» is the information for identifying the computer program and data that a distribution article updates or corrects. An «applicable condition» is the condition information about a computer program, a version or a version of data and the like in which a distribution article may make updating or correction. «The contents, such as change and correction» is the information on the explanatory note about a distribution article, and «importance» is the information (value) about the importance of a distribution article.

[0070] Thus, the following information is provided in the 1st line of table data TBL 502 of the mentioned above drawing 6. Size is «256 KB» and the distribution article in which «distribution article ID» is shown by «00000010» makes the change or correction to a base system on the personal computer (PC). It is applicable if the base system concerned is 1.02 or less in 1.00 or above versions.

And it is for correction for basic security strengthening, and the importance is high. The same may be the mentioned above of subsequent lines.

[0071] By acquiring table data TBL 502 of the mentioned above drawing 6, the information processor 110 can recognize the information (information on a distribution article) about the computer program of the latest version and data or fix information text that will be distributed from now on.

[0072] Step S304: By referring to table data TBL 501 acquired at Step S302, and table data TBL 502 that were acquired at Step S303 (refer to comparison) articles, such as a computer program of the latest version, data or fix information text that needs to be received and accumulated are determined. That is, applicable to the computer program and data that are shown by table data TBL 501 of the mentioned above drawing 5 out of each distribution article shown by table data TBL 502 of the mentioned above drawing 6 is selected.

[0073] Step S305: Determining a priority to the distribution article determined at Step S304 according to the information on the «importance» (refer to the mentioned above drawing 6). When the number of the distribution articles determined at Step S305 is one, the highest priority will be added to the distribution article concerned.

[0074] Step S306, Step S311: Distinguishing the existence of the distribution article (candidate of a processing object) in which the priority was added by Step S305.



When there is no distribution article of a processing object as a result of this distinction (Step S306), this end of processing is carried out as it is (Step S311). On the other hand, when there is a distribution article of a processing object (Step S306), it progresses to the following step S307.

[0075] Step S307: Confirming whether to have an availability of sufficient storage area (RAM 203) for this device 110 to receive and accumulate the distribution article (object distribution article) concerned about a distribution article with the highest priority in the distribution article of a processing object.

[0076] Step S308 and the step S311: The result of the check of step S307 in case an availability is nothing (Step S308) this end of processing is carried out as it is (Step S311). As a result of the check of Step S307, when there is an availability, it determines to receive and accumulate (Step S308) and an object distribution article, and it progresses to the following step S309.

[0077] Step S309: According to delivery information table data TBL 503 of drawing 7, register to the schedule of reception/accumulation and reserve a storage area required for accumulation so that an object distribution article may be received and accumulation may be possible. CPU 201 has managed the schedule of reception/accumulation, for example. Thus, although mentioned below for details, CPU 201 will control operation of this device 110 whole to perform reception and accumulation of a distribution article, if the fixed time comes based on the schedule of

reception/accumulation. The availability of the storage area (RAM 203) of this device 110 will decrease by request to reserve of a storage area required for the mentioned above accumulation.

[0078] Table data TBL 503 of the mentioned above drawing 7 includes the information about distribution of the time when a distribution article is distributed, zones (frequency, a communication method, and the like), or a distribution system and is provided via the network communication part 206 or the broadcast receive part 207 from distribution article distribution origin.

[0079] Table data TBL 503 includes each information on «distribution ID», «distribution start time», «distribution zone ID», «a distribution system/form» and «distribution article ID». «Distribution ID» is ID for identifying a distribution article, and «distribution start time» is information that shows the time that starts distribution of a distribution article. «Distribution zone ID» is information that shows the frequency that distributes, a communication method or a channel. «A distribution system/form» is information that shows the information about a distribution system or the form of distribution. «Distribution article ID» is information that shows a distribution article, and supports «distribution article ID» of the mentioned above drawing 6.

[0080] Thus, the following information is provided in the 1st line of table data TBL 503 of the mentioned above drawing 7. The distribution «distribution ID» is indicated to be by «10021» is started at 1:00 on February 24, 2000. «distribution article ID of the

distribution article distributed» is an article of «00000010», «distribution zone ID» «10» the channel or frequency shown distributes by package. It distributes in form with an electronic signature. The same may be the mentioned above of subsequent lines.

[0081] By acquiring table data TBL 503 of the mentioned above drawing 7, the information processor 110 can recognize how the information (information on a distribution article) about the computer program of the latest version and data or fix information text that will be distributed from now on is received.

[0082] Step S310: After processing to Step S309 is completed, return to Step S306, removing the object distribution article in the processing concerned from a candidate with a priority. When there is a plurality of distribution articles that should be processed by this, processing from Step S306 will be performed to the following distribution article. That is, since the distribution article with the highest priority is removed from the processing object in this case and the 2nd high distribution article of a priority becomes what has the highest priority, processing from Step S306 will be similarly performed to this distribution article whose priority is the 2nd highest.

[0083] The following processings will be performed by CPU 201 if the distribution article (a computer program, data, fix information text) of the latest version that should be received and accumulated by processing of the mentioned above steps S301-S311 is determined.

[0084] Step S401: If it comes before time more arbitrary than the time (time to start reception and accumulation of a distribution article) registered to reception/accumulation schedule at Step S309 of the mentioned above drawing 4 reference the mentioned above drawing 3, processing from the following step S402 will be performed. This processing is performed before time more arbitrary than registration time because the time that the preparation at the time of performing reception and accumulation of a distribution article takes is taken into consideration.

[0085] Step S402: Information required to receive reception and the distribution article of a storage object (it is information in what form and the method when what of receiving in the band where) is acquired from table data TBL 501 - 503 shown on the registration information and the mentioned above drawing 5 - drawing 7 to the schedule of reception/accumulation, and preparations required for the reception concerned are made.

[0086] Step S403: It will be in a waiting state until reception and the distribution article of a storage object are distributed. When the distribution concerned is detected here, it progresses to the following step S404.

[0087] Step S404, Step S405, Step S411: The information on the distributed distribution article, it checks whether the information acquired at Step S402 agrees (Step S404), and it is distinguished using the result of this check whether it is what the distribution article concerned makes the purpose (Step S405).

When it is not a distribution article made into the purpose as a result of this distinction, it is considered as the end of an error (Step S411).

[0088] Step S406: When the distribution article made into the purpose is distributed as a result of distinction of Step S404, receive the distribution article concerned and accumulate to the memory means for accumulation (RAM 203).

[0089] Step S407, Step S408, Step S411: Checking whether reception and accumulation of the distribution article concerned have been performed correctly using arbitrary error checks, correcting means, and the like (Step S407), and by the result of this check, it is distinguished whether it is processing normal termination (Step S408). When it is not processing normal termination as a result of this distinction, it is considered as the end of an error (Step S411).

[0090] Step S409: Notify a user of the distribution article received and accumulated having become available. Thus, the user can perform now the correction and updating of the present computer program in the apparatus 120-140 and data using the distribution article accumulated into this device 100.

[0091] As mentioned above, according to this embodiment, by simultaneous transmissive communication type communication, it can receive automatically and the information processor 110 can accumulate the computer program of the latest version, data or fix information text that a user needs.

By such composition, the user can make easily updating and correction of the computer program and data of apparatus.

[0092] In the 1st embodiment, it may be made to receive articles (distribution article), such as a computer program of the latest version, data or fix information text that needs to be received and accumulated by the following methods (Example 1 - Example 3).

[0093] (Example 1) Choosing the suitable broadcasting station, the course and the communication method or schedule that can receive a distribution article as soon as possible when receivable by a plurality of broadcasting stations, a course and a communication method or a schedule.

(Example 2) Choosing the suitable broadcasting station, the course and the communication method or schedule that can receive as many things as possible for each distribution article as soon as possible.

(Example 3) Choosing the suitable broadcasting station about reception of each distribution article, the course and the communication method or schedule that can receive the high distribution article of importance as soon as possible.

[0094] In the 1st embodiment, it may be made to determine articles (distribution article), such as a computer program of the latest version, data or fix information text that needs to be received and accumulated by the following methods. For example, when receiving this time the article corresponding to the distribution article that determined the distribution

article received this time also using the information on the distribution article that was received and accumulated in the past, for example, had been received in the past is determined, the distribution article of the past concerned is deleted.

[0095] Since explanation is easy about the following 2nd - the 5th embodiment, only different composition from the 1st embodiment is explained concretely.

[0096] (The 2nd embodiment) According to this embodiment, in the information processing system 100 of the mentioned above drawing 1, application ID that is the information about importance is used as information (refer to table data TBL 502 of the mentioned above drawing 6) about the distribution article that the distribution side provides to the information processor 110. Application ID here is ID that classified preliminary the contents of application of the object distribution article itself performing what kind of correction and updating, and was added for every contents of application concerned of each that was classified and the information on the importance is included too.

[0097] Thus, the information processor 110 determines the priority of the distribution article (the computer program of the latest version, data, fix information text) that needs to be received and accumulated based on the mentioned above application ID.

[0098] Specifically by this embodiment, table data TBL 502-2 as shown on drawing 8 is used instead of table data TBL 502 of the mentioned above drawing 6, for example. The difference between table data TBL 502 of the mentioned above drawing 6 and table data TBL 502-2 of the mentioned above drawing 8, by table data TBL 502-2, «application ID» is given for every distribution article to «importance» given for every distribution article in table data TBL 502. In this embodiment, table data TBL 502-2-1 that matched and carried out the contents of application and importance that the value of «application ID» as shown on drawing 9 shows, for example is used.

[0099] Information by which all the information on table data TBL 502-2 and table data TBL 502-2-1 is acquired from the distribution side at Step S303 of the mentioned above drawing 3.

[0100] Thus, the following information is provided in the 1st line of table data TBL 502-2 of the mentioned above drawing 8. Size is «256 KB» and the distribution article in which «distribution article ID» is shown by «00000010» makes the change or correction to a base system on the personal computer (PC). It is applicable if the base system concerned is 1.02 or less in 1.00 or above versions. And it is for correction for basic security strengthening, and the importance is high by application ID (=014). The same may be the mentioned above of subsequent lines.



[0101] As mentioned above, since it has composition using application ID as shown on the mentioned above drawing 9 according to this embodiment, the information that has the necessity that the importance of the computer program and data of the latest version or fix information text, and the like that will be distributed from now on, is how much high and they apply and the like is acquirable.

[0102] (The 3rd embodiment) According to this embodiment, in the showing in the mentioned above drawing 1 information processing system 100, operation that determines the distribution article which the information processor 110 receives and accumulates is considered as the operation that followed the flow chart shown on drawing 10 instead of the operation shown on the mentioned above drawing 3, for example.

[0103] In the flow chart of the mentioned above drawing 10, the same numerals are given to the step that carries out processing execution like the flow chart of the mentioned above drawing 3, and the detailed explanation is omitted.

[0104] Steps S301-S303: if directions of execution of this processing are made by the keyboard 208 from a user or when it becomes clear that the situation changed because the latest version of the variety of information mentioned below comes into hand (Step S301), first, information on the computer program used by the apparatus 120-140 on LAN 150 now, data, and the like (table data TBL 501 reference of the mentioned above drawing 5 is acquired (Step S302)).

Next, multiple address type distributes from the exterior via the network communication part 206 or the broadcast receive part 207. Or the information (refer to table data TBL 502 of the mentioned above drawing 6) about the computer program of the latest version and data or fix information text of a schedule that are distributed by storages, such as a memory card, is acquired (Step S303).

[0105] Step S304-3: Table data TBL 501 acquired at Step S302 as well as Step S304 shown on the mentioned above drawing 3, although articles (distribution article), such as a computer program of the latest version, data or fix information text, that needs to be received and accumulated by referring to table data TBL 502 acquired at Step S303 (refer to comparison) are determined, especially according to this embodiment, a screen display informs a user of the information about a candidate's distribution article acquired here, and an unnecessary candidate's distribution article is deleted according to the directions from a user. It becomes unnecessary thus, for a user to perform reception and accumulation of the computer program of the latest version, data or fix information text about the apparatus or a computer program or data that is not used for example.

[0106] Drawing 11 shows the window 601 for notifying a user of the information about a candidate's distribution article displayed on the screen of CRT 212. A window here is for dividing and showing so that a user may tend to distinguish a function and the like that are different to up to the screen of CRT 212.

Thus, a user is displaying a plurality of windows on the screen of CRT 212, and it becomes possible to perform various operations, being able to use a plurality of functions simultaneously or comparing information.

[0107] In the mentioned above drawing 11, «601a» is a title bar of the window 601. By operating the title bar 601a by keyboard 208, movement, opening and closing, and the like of the window 601 can be performed.

«601b» is a portion for performing various directions in the window 601 of operation, the help button for displaying the information about the deletion button for performing deletion of the display button for changing a display mode and a candidate's selected distribution article, various operations in the window 601, and the like are included.

[0108] «601c» - «601e» is a portion as which the information about the distribution article selected as a candidate who receives and accumulates is displayed.

[0109] The information about the apparatus corresponding to a candidate's distribution article is displayed on the display portion 601c. In the mentioned above drawing 11, as apparatus corresponding to a candidate's distribution article, there are GC (140), PC (120) and TV/VR (130) and PC (120) is chosen from them. This selection is made by operation of a user's keyboard 208.

[0110] The information on the computer program that is the target of change or correction with the distribution article to apparatus selected in the display portion 601c, data and the like is displayed on 601d of display

portions. In the mentioned above drawing 11, as the computer program that is the target of change of PC (120) or correction selected in the display portion 601c, data and the like, there are a base system and a printer driver and the base system is chosen. This selection is made by operation of a user's keyboard 208.

[0111] The information about the contents about the computer program, data and the like that is the target of change or correction selected in 601 d of display portions or the present state is displayed on the display portion 601e. Display information here is equivalent to the information on table data TBL 501 of the mentioned above drawing 5, and table data TBL 502 of the mentioned above drawing 6.

[0112] Thus, the user can check the information about all the distribution articles that serve as a candidate of reception and accumulation by choosing that for which it asks in the display portions 601c and 601d. And it is that only selection in the display portion 601c operates «deletion» button in the state in display portions 601c and 601d both where it chose (depression and the like) and the user can delete the distribution article of the candidate concerned.

[0113] For example, if «deletion» button is operated where «PC» is chosen in the display portion 601c, deletion instruction of all the distribution articles for updating and correction about PC can be carried out from a candidate. If «deletion» button is operated where it chose «PC» in the display portion 601c and a «base system» is chosen in 602 d of display portions for

example, deletion instruction of the distribution article about the base system of PC can be carried out from a candidate.

[0114] Thus, what is necessary is just to receive and accumulate by the above users' operation about the distribution article in which deletion instruction was not made.

[0115] Steps S305-S308, S311: As opposed to the distribution article (distribution article that was not deleted by the directions from a user in a candidate's distribution article) determined at Step S304, a priority is determined according to the information on the «importance» (refer to the mentioned above drawing 6) (Step S305), there is a distribution article (candidate of a processing object) in which this priority was added, it is a case (Step S306). It confirms whether to have an availability of sufficient storage area (RAM 203) for this device 110 to receive and accumulate the distribution article (object distribution article) concerned about a distribution article with the highest priority in the distribution article of a processing object (Step S307). And the result of the check of Step S307, in case an availability is nothing (Step S308), this end of processing is carried out as it is (Step S311). Also when there is no distribution article of a processing object as a result of distinction of Step S306 (Step S306), this end of processing is carried out as it is (Step S311). As a result of the check of Step S307, when there is an availability, it determines to receive and accumulate (Step S308) and an object distribution article, and it progresses to the following step S309-3.

[0116] Step S309-3: According to table data TBL 503 of the mentioned above drawing 7, register to the schedule of reception/accumulation, and reserve a storage area required for accumulation, so that an object distribution article may be received and accumulation may be possible. At this time, the method of obtaining an object distribution article cheaply is chosen especially by this embodiment according to utilization charge system table data TBL 602 as shown on drawing 12.

[0117] First, the table data 602 of the mentioned above drawing 12 includes the information about the utilization charge system about multiple address type for distributing a distribution article and the like, and, specifically, matches and carries out the information about a utilization charge system and the like for every ID of the distribution zone used for distribution. The information on this table data 602 is provided via the network communication part 206 or the broadcast receive part 207 from distribution article distribution origin.

[0118] Table data TBL 602 includes information on «distribution zone ID», a «name», and a «utilization charge system». «Distribution zone ID» is ID for discernment of a distribution zone. Name of the system of distribution by the distribution zone a «name» is indicated to be by distribution zone ID. In distribution by the distribution zone shown by distribution zone ID, a «utilization charge system» is an amount of money required for the data distribution for 1 KB.

[0119] Thus, the following information is provided in the 1st line of table data TBL 602 of the mentioned above drawing 12. «Distribution zone ID» is «the XYZ broadcast information service 10», and the name of the distribution that is «10» is 0 yen per KB, namely, free distribution by the distribution concerned. The same may be the mentioned above of subsequent lines.

[0120] By acquiring table data TBL 602 of the mentioned above drawing 12, and referring to this table data TBL 602 and the information on «size» of table data TBL 502 of the mentioned above drawing 6. The information processor 110 can recognize an amount of money required in order for the information (information on a distribution article) about the computer program of the latest version and data or fix information text that will be distributed from now on to come into hand. Thus, in this step S309-3, by table data TBL 602 of the mentioned above drawing 12, and table data TBL 502 of the mentioned above drawing 6, the method of obtaining an object distribution article cheaply is chosen and it registers to the schedule of reception/accumulation about the method concerned too.

[0121] Step S310: After processing to step S309-3 is completed, in order to perform processing to the high distribution article of the following priority except for the object distribution article in the processing concerned from a candidate with a priority, return to Step S306.

[0122] As mentioned above, according to this embodiment, the information processor 110 can acquire the computer program of the latest version and data or fix information text and the like that will be distributed from now on, from a user with a cheap obtaining method based on directions. By such composition, the user can acquire only the distribution article for which it asks, and can make change concerned and correction only to the computer program of apparatus, and apparatus updating and correcting by data. The user can hold down renewal of the computer program and data of apparatus and the cost for correction.

[0123] (The 4th embodiment) According to this embodiment, in the showing in the mentioned above drawing 1 information processing system 100, operation that determines the distribution article that the information processor 110 receives and accumulates is considered as the operation that followed the flow chart shown on drawing 13 instead of the operation shown on the mentioned above drawing 3, for example.

[0124] In the flow chart of the mentioned above drawing 13, the same numerals are given to the step that carries out processing execution like the flow chart of the mentioned above drawing 3 and the detailed explanation is omitted.

[0125] Steps S301-S303: If directions of execution of this processing are made by the keyboard 208 from a user or when it becomes clear that the situation changed because the latest version of the variety of information mentioned below comes into hand (Step S301), first,



information on the computer program, data and the like used by the apparatus 120-140 on LAN 150 now, (table data TBL 501 reference of the mentioned above drawing 5 is acquired (Step S302)). Next, multiple address type distributes from the exterior via the network communication part 206 or the broadcast receive part 207. Or the information (refer to table data TBL 502 of the mentioned above drawing 6) about the computer program of the latest version and data or fix information text of a schedule that are distributed by storages, such as a memory card, is acquired (Step S303).

[0126] Steps S304-S308, S311: By referring to table data TBL 501 acquired at Step S302, and table data TBL 502 that were acquired at Step S303 (refer to comparison). Articles, such as a computer program of the latest version , data or fix information text that needs to be received and accumulated are determined (Step S304). As opposed to the distribution article (distribution article that was not deleted by the directions from a user in a candidate's distribution article) determined at Step S304, A priority is determined according to the information on the «importance» (refer to the mentioned above drawing 6) (Step S305), there is a distribution article (candidate of a processing object) in which this priority was added, it is a case (Step S306). It confirms whether to have an availability of sufficient storage area (RAM 203) for this device 110 to receive and accumulate the distribution article (object distribution article) concerned about a distribution article with the highest

priority in the distribution article of a processing object (Step S307). And the result of the check of Step S307 in case an availability is nothing (Step S308) this end of processing is carried out as it is (Step S311). Also when there is no distribution article of a processing object as a result of distinction of Step S306 (Step S306), this end of processing is carried out as it is (Step S311). As a result of the check of Step S307, when there is an availability, it determines to receive and accumulate (Step S308) and an object distribution article and it progresses to the following step S309-4.

[0127] Step S309-4: According to table data TBL 503 of the mentioned above drawing 7, register to the schedule of reception/accumulation and reserve a storage area required for accumulation so that an object distribution article may be received and accumulation may be possible. At this time, according to utilization charge system table data TBL 602 shown on the mentioned above drawing 12, the method of obtaining an object distribution article cheaply is chosen like step S309-3 in the 3rd embodiment and it registers to the schedule of reception/accumulation about the method concerned too.

[0128] Step S310: After processing to step S309-4 is completed, in order to perform processing to the high distribution article of the following priority except for the object distribution article in the processing concerned from a candidate with a priority, return to Step S306.

[0129] As mentioned above, according to this embodiment, the information processor 110 can acquire the computer program of the latest version and data or fix information text, and the like that will be distributed from now on with a cheap obtaining method. By such composition, the user can hold down renewal of the computer program and data of apparatus and the cost for correction.

[0130] (The 5th embodiment) According to this embodiment, in the showing in the mentioned above drawing 1 information processing system 100, operation that determines the distribution article that the information processor 110 receives and accumulates is considered as the operation that followed the flow chart shown on drawing 14 instead of the operation shown on the mentioned above drawing 3, for example.

[0131] In the flow chart of the mentioned above drawing 14, the same numerals are given to the step that carries out processing execution like the flow chart of the mentioned above drawing 3, and the detailed explanation is omitted.

[0132] Steps S301-S303: If directions of execution of this processing are made by the keyboard 208 from a user or when it becomes clear that the situation changed because the latest version of the variety of information mentioned below comes into hand (Step S301), First, information on the computer program, data, and the like used by the apparatus 120-140 on LAN 150 now (table data TBL 501 reference of the mentioned above drawing 5 is acquired (Step S302)).

Next, multiple address type distributes from the exterior via the network communication part 206 or the broadcast receive part 207. Or the information (refer to table data TBL 502 of the mentioned above drawing 6) about the computer program of the latest version and data or fix information text of a schedule that are distributed by storages, such as a memory card, is acquired (Step S303).

[0133] Step S304-5: Table data TBL 501 acquired at Step S302 as well as Step S304 shown on the mentioned above drawing 3, although articles (distribution article), such as a computer program of the latest version, data or fix information text that needs to be received and accumulated by referring to table data TBL 502 acquired at Step S303 (refer to comparison) are determined, at this time, the window 601 as shown on the mentioned above drawing 11 notifies the information about a candidate's distribution article acquired here like step S304-3 in the 3rd embodiment and an unnecessary candidate's distribution article is deleted according to the directions from a user. It becomes unnecessary thus, for a user to perform reception and accumulation of the computer program of the latest version, data or fix information text about the apparatus that is not used or a computer program or data, for example.

[0134] Steps S305-S308, S311: As opposed to the distribution article (distribution article which was not deleted by the directions from a user in a candidate's distribution article) determined at Step S304, a priority is determined according to the information on the

«importance» (refer to the mentioned above drawing 6) (Step S305), there is a distribution article (candidate of a processing object) in which this priority was added, it is a case (Step S306). It confirms whether to have an availability of sufficient storage area (RAM 203) for this device 110 to receive and accumulate the distribution article (object distribution article) concerned about a distribution article with the highest priority in the distribution article of a processing object (Step S307) and the result of the check of Step S307 in case an availability is nothing (Step S308), this end of processing is carried out as it is (Step S311). Also when there is no distribution article of a processing object as a result of distinction of Step S306 (Step S306), this end of processing is carried out as it is (Step S311). As a result of the check of Step S307, when there is an availability, it determines to receive and accumulate (Step S308) and an object distribution article, and it progresses to the following step S309-3.

[0135] Step S309, S310: According to table data TBL 503 of the mentioned above drawing 7, register to the schedule of reception/accumulation and reserve a storage area required for accumulation so that an object distribution article may be received and accumulation may be possible (Step S309). And in order to perform processing to the high distribution article of the following priority except for the object distribution article by processing to Step S309 from a candidate with a priority, it returns to Step S306.

[0136] As mentioned above, according to this embodiment, the information processor 110 can acquire the computer program and data or fix information text and the like of the latest version which will be distributed from now on, from a user based on directions. By such composition, the user can acquire only the distribution article for which it asks, and can make change concerned and correction only to the computer program of apparatus, and apparatus updating and correcting by data.

[0137] The purpose of this invention is the storage that stored the program code of the software that realizes the host of the 1st - the 5th embodiment, and the function of a terminal, it cannot be overemphasized that it is achieved, also when a system or a device is supplied and the computer (or CPU and MPU) of the system or a device reads and executes the program code stored in the storage. In this case, the program code itself read from the storage will realize the function of the 1st - the 5th embodiment, and the storage that stored that program code will constitute this invention. As a storage for supplying a program code, ROM, a floppy disk, a hard disk, an optical disc, a magneto-optical disc, CD-ROM, CD-R, magnetic tape, a nonvolatile memory card and the like can be used. By executing the program code that the computer read, it cannot be overemphasized that it is included also when the function of the 1st - the 5th embodiment is not only realized, but it performs a part or all of processing that OS and the like that are working on a computer are actual, based on directions of the program code and the function of the 1st - the 5th

embodiment is realized by the processing. After the program code read from the storage was written in the memory with which the function expansion unit connected to the expanded function board inserted in the computer or the computer is equipped. It cannot be overemphasized that it is included also when a part or all of processing that CPU and the like with which the expansion board and function expansion unit are equipped are actual is performed based on directions of the program code and the function of the 1st - the 5th embodiment is realized by the processing.

[0138]

[Effect of the invention] As explained above, according to this invention, distribute with a multiple address type communication method and the like, it can receive and accumulate in a required distribution article automatic target out of the information (distribution articles, such as a computer program, data and fix information text) for carrying out the function of arbitrary devices or a system, even if a user does not know the detailed specification about the device or systems currently used (the domestic appliance including a computer, computers for individuals, such as a personal computer, and the like), the computer program used by the device or a system concerned (starting) and the like, a distribution article required for the functional rise of the device or a system concerned and the like comes into hand easily and efficiently, and updating or correction of a computer program, data and the like used by the device or system concerned can be made easily and efficiently. Thus, a user's burden is greatly reduced.

### **[Brief description of the drawings]**

[Drawing 1] is a block diagram showing the composition of the information processing system that applied this invention in the 1st embodiment.

[Drawing 2] is a drawing for explaining an example of real original form voice that reads the computer program concerned and the like into a device and executes them from the medium that stored the computer program and the like that realize the function of the mentioned above information processing system.

[Drawing 3] is a flow chart for explaining the processing for determining the distribution article (the computer program of the latest version, data, fix information text) that is the target of reception and accumulation in the information processor of the mentioned above information processing system.

[Drawing 4] is a flow chart for explaining the processing for reception and accumulation of the mentioned above distribution article.

[Drawing 5] is a drawing for explaining the table data (information about a computer program, data, and the like of apparatus that the user is using) used with the mentioned above information processor.

[Drawing 6] is a drawing for explaining the table data (information about a distribution article) used with the mentioned above information processor.



[Drawing 7] is a drawing for explaining the table data (information about distribution) used with the mentioned above information processor.

[Drawing 8] is a drawing for explaining the table data (information about a distribution article) used with the mentioned above information processor in the 2nd embodiment

[Drawing 9] is a drawing for explaining the table data of application ID of the table data (information about a distribution article) used with the mentioned above information processor in the 2nd embodiment

[Drawing 10] is a flow chart for explaining the processing for determining the distribution article (the computer program of the latest version, data, fix information text) that is the target of the mentioned above reception and accumulation in the 3rd embodiment

[Drawing 11] is a drawing for explaining an example of the window screen for showing and deleting the mentioned above object distribution article in the 3rd embodiment

[Drawing 12] is a drawing for explaining the table data (information about a utilization charge system) used in order for the mentioned above information processor to determine the obtaining method of a distribution article in the 3rd embodiment.

[Drawing 13] is a flow chart for explaining the processing for determining the distribution article (the computer program of the latest version, data, fix information text) that is the target of the mentioned

above reception and accumulation in the 4th embodiment

[Drawing 14] is a flow chart for explaining the processing for determining the distribution article (the computer program of the latest version, data, fix information text) that is the target of the mentioned above reception and accumulation in the 5th embodiment

### **[Description of notations]**

- 100 Information processing system
- 110 Information processor
- 120 The personal computer (PC)
- 130 TV/VR device
- 140 The game computer for home use (GC)
- 150 LAN
- 201 CPU
- 202 ROM
- 203 RAM
- 204 Hard disk (DISK)
- 205 Memory card driver (MemCard)
- 206 Network communication part (NCU)
- 207 Broadcast receive part (DTU)
- 208 Keyboard (KB)
- 209 Cursor register (CR)
- 210 The buffer memory for a display (DBUF)

211 Display control part (CRTC)

212 CRT

213 Character register (CG)

214 Antenna

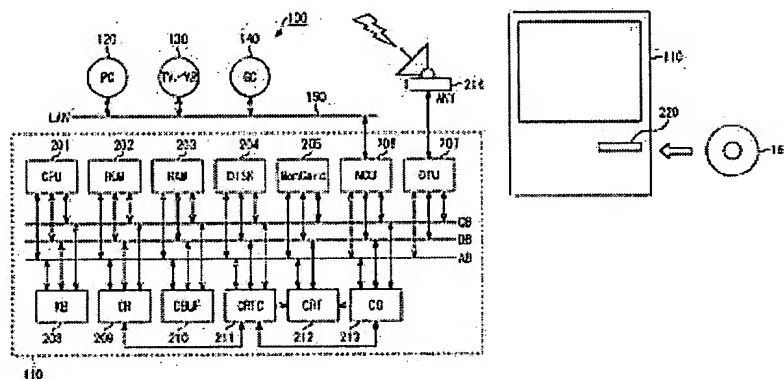
AB Address bus

CB Control bus

DB Data bus DB

Drawing 1

Drawing 2



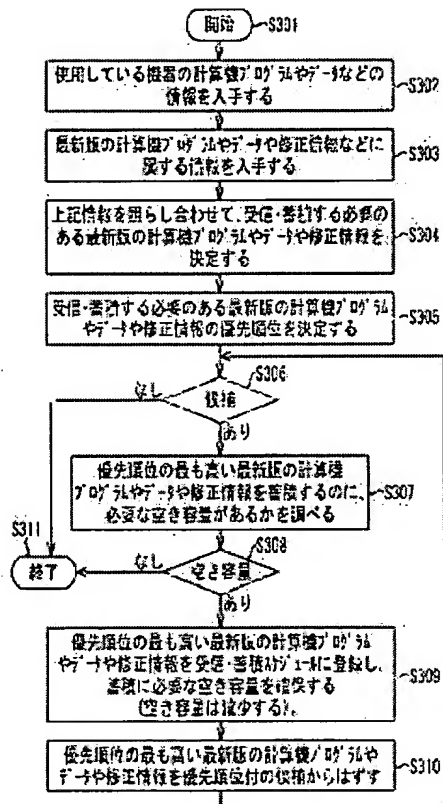
Drawing 9

計算機プログラムやデータの変更/追加/修正の重要度に関する情報

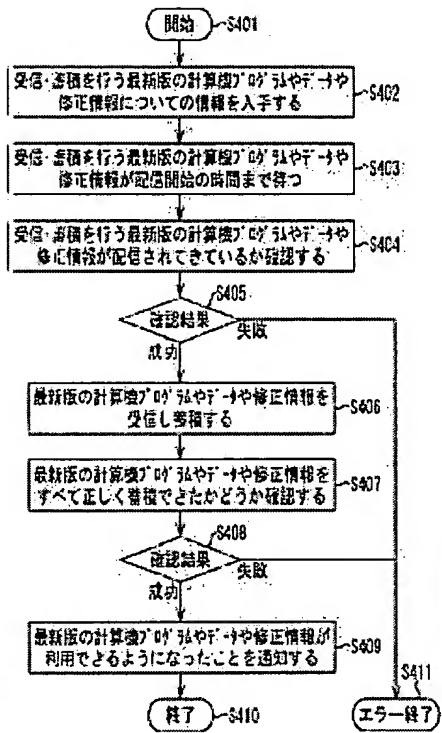
計算機プログラムやデータの変更/追加/修正の重要度レベル TBL502-2-1

記号ID	適用内容	重要度
011	基本システムの不具合の修正	高
014	基本システムのセキュリティ向上のための修正	高
021	ドライバの不具合の修正	中
024	ドライバの機能追加	低
050	アプリケーションのデータ追加	低

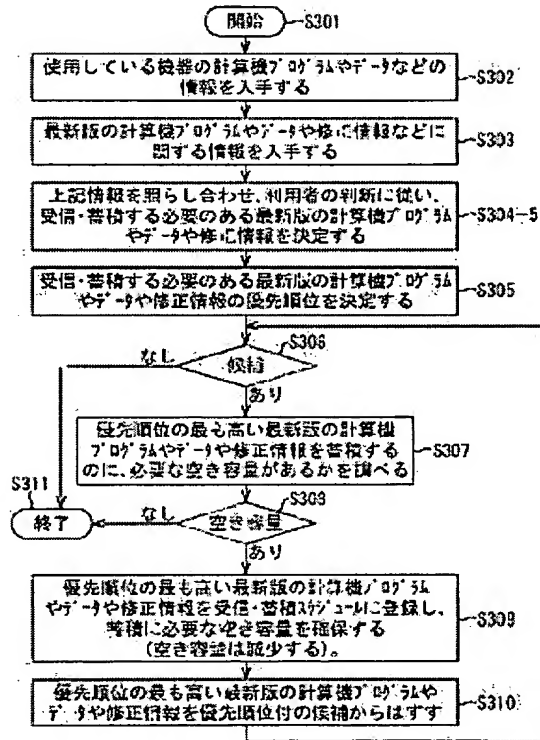
Drawing 3



Drawing 4



# Drawing 14



## Drawing 5

利用している計算機プログラムやデータに関する情報

利用計算機プログラム/データ情報テーブルTBL501

利用ID	動作機器	名前	現在の状態
0010	PC(120)	基本システム	V1.00, 1999/12/17版
0014	PC(121)	プリンタドライバ	V2.40, 1999/10/10版
0018	PC(122)	文書編集アプリケーション	V5.60, 2000/02/01版
0020	TV/VR(130)	基本システム	V1.22, 1999/12/23版
0022	TV/VR(131)	ブラウザソフト	V5.00, 2000/01/03版
0100	GC(140)	基本システム	V1.22, 1999/02/01版
0105	GC(141)	RPGゲーム	V1.02, ステージ1をクリア

## Drawing 6

最新版の計算機プログラムやデータや修正情報に関する情報

配信物件情報テーブルTBL502

配信物件ID	サイズ(KB)	対象機器	対象物件	適用条件	変更・修正などの内容	重要度
00000010	256,000	PC	基本システム	V1.00以上 V1.02以下	セキュリティ強化のための修正	高
00001212	2048,000	TV/VR	ブラウザソフト	V5.00以上 V5.01以下	新画像格式対応のための修正	中
10020213	768,000	PC	プリンタドライバ	1999/12/11 版以前	印刷時の不具合の修正	中
21212111	2048,000	GC	RPGゲーム	ステージ2 以上をクリア	新キャラクター追加	低

## Drawing 7

最新版の計算機プログラムやデータや修正情報の配信に関する情報

配信情報テーブルTBL503

配信ID	配信開始時刻	配信帯域ID	配信方式/形式	配信物件ID
10021	2000/02/24-01:00:00	10	一括・電子署名	00000010
12201	2000/02/24-02:00:00	102	一括	21212111
12402	2000/02/25-01:00:00	10	一括・電子署名	00000010
21200	2000/02/25-03:00:00	211	一括	10020213
22220	2000/02/26-02:00:00	222	一括	00001212
22230	2000/02/26-04:00:00	222	一括	00001212

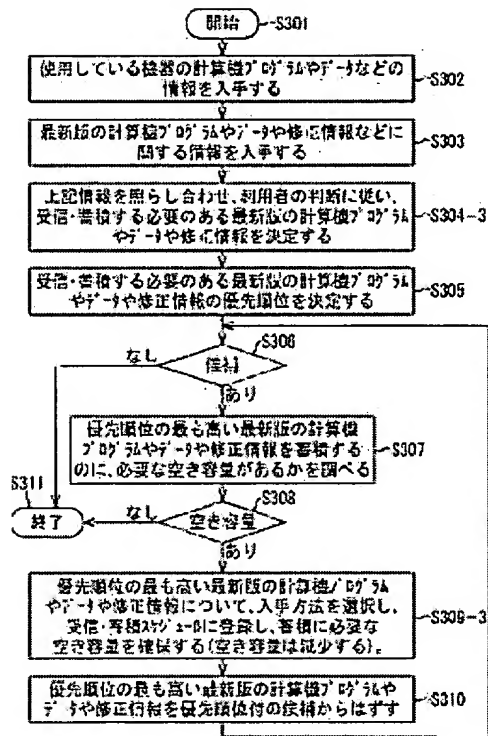
## Drawing 8

最新版の計算機プログラムやデータや修正情報に関する情報

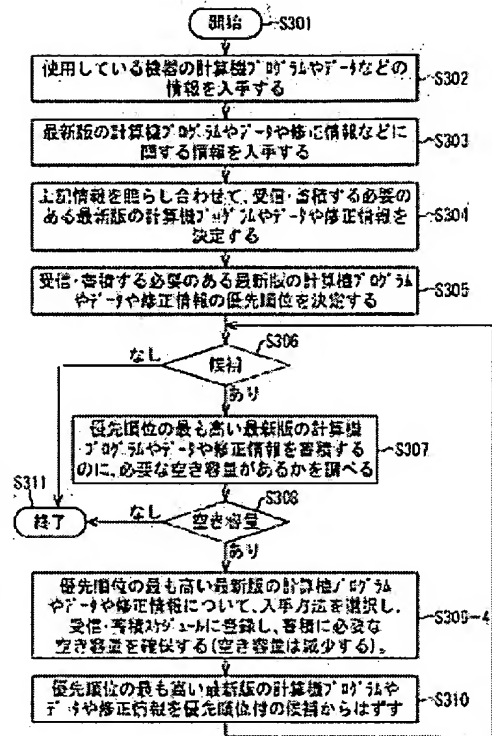
配信物件情報テーブルTBL502-2

配信物件ID	サイズ(KB)	対象物件	適用条件	適用ID	変更・修正などの内容
00000010	256,000	基本システム	V1.00以上 V1.02以下	014	セキュリティ強化のための修正
00001212	2048,000	ブラウザソフト	V5.00以上 V5.01以下	030	新画面規格新形式対応のための修正
10020213	768,000	プリンタドライバ	1999/12/11 版以前	021	印刷時の不具合の修正
21212111	2048,000	RPGゲームソフト	ステージ2 以上をクリア	050	新キャラクター追加

Drawing 10

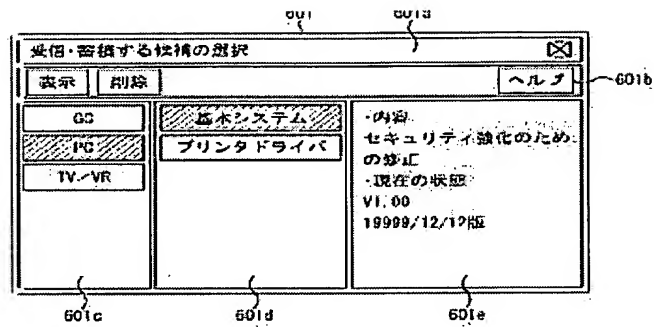


Drawing 13





Drawing 11



Drawing 12

各同報型通の利用料金体系表

利用料金体系テーブル T6L602

配信帯域ID	名称	利用料金体系
10	XYZ放送 情報サービス10	0円/KB
102	B&B放送 ダウンロード2	90円/KB
108	BBB放送 ダウンロード12	100円/KB
211	VWケーブルテレビ データ1	120円/KB
222	VWケーブルテレビ デジタル2	120円/KB
223	VWケーブルテレビ デジタル3	120円/KB